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10/618,250	07/11/2003	Lance A. Tatman	10021014-1	4605

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EXAMINER	
WON, MICHAEL YOUNG	
ART UNIT	**PAPER NUMBER**
2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,250	TATMAN ET AL.	
	Examiner	Art Unit	
	Michael Y. Won	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *attached*.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed June 6, 2007 and interview conducted on August 1, 2007.

2. Claims 1, 23, 24, 39, and 45 have been amended.

3. Claims 1-51 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 11, 12, 14-17, 22-24, 27-34, and 39-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Kovacs (US 6,415,220).

INDEPENDENT:

As per **claim 1**, Kovacs teaches a system for physical location self awareness in network connected devices, said system comprising:

a location server acquiring locations of said devices from a real-time location system (see Fig.2 and col.2, lines 6-8: "Stationary node of at least one network are provided with position information representing the stationary position of the corresponding node");

an agent operable to run on each of said devices (see col.2, lines 50-52: "program code means loadable into a memory of a mobile device is provided"), said agent querying said location server for a location of said device (see col.2, lines 29-32: "request/reply mode... send their position information to mobile device only on request") and storing location information for said device on said device (see col.3, lines 3-4: "The mobile communications device can comprise a storage unit for storing positional information received"); and

wherein when said location server is unable to satisfy said query for said location of said device, said location server is operable to query a hierarchical server (see Fig.5: "Geolocation Server") that is operable to query other location servers for the location of said device (see col.5, lines 13-16: "send the geolocation information directly (not using broadcast) to the mobile device if it is able to determine the active (mobile) device within its cell").

As per **claim 24**, Kovacs teaches a method for providing location self awareness in a network connected device, said method comprising:

establishing a location server for acquiring a location of said device from a real-time location system (see Fig.2 and col.2, lines 6-8: "Stationary node of at least one

network are provided with position information representing the stationary position of the corresponding node");

executing an agent on said device (see col.2, lines 50-52: "program code means loadable into a memory of a mobile device is provided");

instructing, by said agent, said device to send a query to said location server for location information for said device (see col.2, lines 29-32: "request/reply mode... send their position information to mobile device only on request");

wherein when said location server is unable to provide said location information for said device in response to said query, then said location server querying a hierarchical server (see Fig.5: "Geolocation Server") to obtain said location information from another location (see col.5, lines 13-16: "send the geolocation information directly (not using broadcast) to the mobile device if it is able to determine the active (mobile) device within its cell"); and

storing said location information for said device on said device (see col.3, lines 3-4: "The mobile communications device can comprise a storage unit for storing positional information received").

As per **claim 39**, Kovacs teaches a system for physical location self awareness in a network connected device across a domain of a plurality of related real-time location systems, said system comprising:

a plurality of location servers, each location server acquiring locations of devices under a real-time location system associated with said location server (see col.3, lines

7-10: "The network comprises at least one stationary node adapted to transmit position information representing the stationary position of the corresponding node");

an agent operable to run on each of said devices (see col.2, lines 50-52: "program code means loadable into a memory of a mobile device is provided"), said agent on a device querying a nearest location server (see col.3, lines 47-49: "covering a small geographic area") associated with said device for a location of said device (see col.2, lines 29-32: "request/reply mode... send their position information to mobile device only on request") and storing location information for said device on said device (see col.3, lines 3-4: "The mobile communications device can comprise a storage unit for storing positional information received"); and

a hierarchical server (see Fig.5: "Geolocation Server") adapted to querying each of said location servers for a location of said devices if said nearest location server fails to return a location of said device (see col.5, lines 13-16: "send the geolocation information directly (not using broadcast) to the mobile device if it is able to determine the active (mobile) device within its cell").

As per **claim 45**, Kovacs teaches a method for physical location self awareness in network connected devices across a domain of a plurality of related real-time location systems, said method comprising:

establishing a plurality of location servers, each of said location servers acquiring locations of said devices under a real-time location system associated with said location server (see col.3, lines 7-10: "The network comprises at least one stationary node

adapted to transmit position information representing the stationary position of the corresponding node");

executing an agent on each of said devices (see col.2, lines 50-52: "program code means loadable into a memory of a mobile device is provided");

instructing, by said agent, that an associated device send a query for location information of said device to a nearest location server (see col.3, lines 47-49: "covering a small geographic area") associated with said device (see col.2, lines 29-32: "request/reply mode... send their position information to mobile device only on request");

querying, by the hierarchical server (see Fig.5: "Geolocation Server"), upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said device (see col.5, lines 13-16: "send the geolocation information directly (not using broadcast) to the mobile device if it is able to determine the active (mobile) device within its cell"); and

storing, by said agent, returned location information for said device on said device (see col.3, lines 3-4: "The mobile communications device can comprise a storage unit for storing positional information received").

DEPENDENT:

As per **claim 2**, which depends on claim 1, Kovacs further teaches wherein said location server maintains said locations of said devices in a database (see col.6, lines 46-50).

As per **claim 3**, which depends on claim 2, Kovacs further teaches wherein said location server acquires said locations of said devices when said location server is established (see col.4, lines 54-56).

As per **claims 4 and 29**, which respectively depend on claims 1 and 24, Kovacs further teaches wherein said location server acquires said location from said real-time location system upon said agent querying said location server for a location of said device (see col.3, lines 52-53).

As per **claims 5, 14, and 30**, which respectively depend on claims 1, 13, and 24, Kovacs further teaches wherein said location server is an extension of said real-time location system (see col.4, lines 33-36).

As per **claim 6**, which depends on claim 1, Kovacs further teaches wherein said agent is software executed by said device (see col.2, lines 50-54).

As per **claim 7**, which depends on claim 1, Kovacs further teaches wherein said agent is a process incorporated into said device (see col.2, lines 50-54).

As per **claim 8**, which depends on claim 7, Kovacs further teaches wherein said agent is incorporated into firmware of said device (see col.2, lines 50-54).

As per **claims 11 and 27**, which respectively depend on claims 1 and 24, Kovacs further teaches wherein said agent stores said location of said device in memory of said device (see col.3, lines 3-4).

As per **claims 12 and 28**, which respectively depend on claims 1 and 24, Rowitch further teaches wherein said agent stores said location of said device in mass storage of said device (see Fig.1: "Local Database").

As per **claims 15 and 31**, which respectively depend on claims 13 and 24, Kovacs further teaches wherein said location server comprises a duplicate of said central database (see col.4, lines 34-36: "permanent (persistent) storing unit 6 contains the location of the corresponding stationary device" and lines 54-56: "position information stored on the stationary node").

As per **claims 16 and 32**, which respectively depend on claims 1 and 24, Kovacs further teaches wherein said location server pushes location information updates to devices when location data on said location server changes (see col.4, line 58-col.5, line 3).

As per **claim 17**, which depends on claim 1, Kovacs further teaches wherein said location information stored on said device is accessible by a user networked to said device (see col.2, lines 29-32).

As per **claim 22**, which depends on claim 1, Kovacs teaches of further comprising a plurality of real-time location systems (see col.3, lines 7-10).

As per **claim 23**, which depends on claim 22, Kovacs teaches of further comprising a location server associated with each of said real-time location systems and a hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server (see Fig.5 and col.5, lines 47-67).

As per **claim 33**, which depends on claim 32, Kovacs further teaches wherein, said location information updates are pushed only to devices for which location information has changed (see col.4, line 58-col.5, line 3).

As per **claim 34**, which depends on claim 24, Kovacs further teaches comprising: providing access to said stored location information via a network (see col.2, lines 6-8).

As per **claims 40 and 46**, which respectively depend on claims 39 and 45, Kovacs further teaches wherein said hierarchical server queries a next closest location server when said nearest server fails to return a location of said device (see Fig.5 and col.5, lines 47-67).

As per **claims 41 and 47**, which respectively depend on claims 40 and 46, Kovacs further teaches wherein said hierarchical server queries a further next closest location server when said next closest server fails to return a location of said device (see Fig.5 and col.5, lines 47-67).

As per **claims 42 and 48**, which respectively depend on claims 39 and 45, Kovacs further teaches wherein a newly assigned location server pushes a location information update for a moved device (see col.2, lines 26-28).

As per **claims 43 and 50**, which respectively depend on claims 42 and 48, Kovacs further teaches wherein said location information update is pushed to a previous location server to which said moved device was assigned (see col.5, lines 47-67).

As per **claims 44 and 51**, which respectively depend on claims 42 and 48, Kovacs further teaches wherein said location information update is pushed to said moved device (see col.4, line 58-col.5, line 3).

As per **claim 49**, which depend on claim 48, Kovacs further teaches wherein said pushing is carried out in response to said device moving into said newly assigned location server's associated real-time locations system's area (see col.5, lines 13-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 9, 10, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs (US 6,415,220) in view of Girard (US 2003/0005316).

As per **claims 9 and 25**, which respectively depend on claims 1 and 24, Although Kovacs teaches of said agent, Kovacs does not explicitly teach querying said location server on boot of said device.

Girard teaches querying said location server on boot of said device (see page 3, [0030]: "to determine the current location of the mobile PC 100 during boot-up").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Girard by implementing querying said location server on boot of said device. One would be motivated to do so because Kovacs teaches that there are two modes of accessing position information (see col.4, line 54 - col.5, line 13).

As per **claim 10 and 26**, which respectively depend on claims 1 and 24, Although Kovacs teaches of said agent, Kovacs does not explicitly teach periodically querying said location.

Girard teaches periodically querying said location (see page 1, [0004]: "to instruct the computer to call a third party monitoring service at regular intervals").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Girard by implementing periodically querying said location. One would be motivated to do so because Kovacs teaches that there are two modes of accessing position information (see col.4, line 54 - col.5, line 13).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs (US 6,415,220) in view of Werb et al. (US 6,456,239).

As per **claim 13**, which depends on claim 1, Although Kovacs teaches of a plurality of receivers, Kovacs does not explicitly teach of further comprising said real-time location system comprising: a tag associated with each device to be tracked; said receivers locating each of said tags; and a central database of locations of said tagged devices.

Werb teaches a tag associated with each device to be tracked (see col.3, lines 19-21: "one or more assets associated with the tag"); said receivers locating each of said tags (see col.3, lines 46-53: "determine the location of the tag"); and a central database of locations of said tagged devices (see col.21, lines 9-14: database may be used ... to locate a tag").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Werb so that tags are

associated with the device, located and stored. One would be motivated to do so because such implementation would be obvious to one of ordinary skill in the art to provide greater functionality of keeping track of an asset (mobile device) rather than merely providing location information to the mobile device (see Werb: col.1, lines 22-26). Furthermore, Kovacs teaches that this is one of plural known techniques for position determination of devices (see col.1, lines 28-32).

7. Claims 18-21 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kovacs (US 6,415,220) in view of Land et al. (6,008,805).

As per **claims 18 and 35**, which respectively depend on claims 17 and 34, Although Kovacs teaches of accessing location information, Kovacs does not explicitly teach wherein information is accessible by said user via a shell.

Land teaches accessing information by said user via a shell (see col.7, lines 14-18: "script").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Land so that information is accessible by said user via a shell. One would be motivated to do so because one of ordinary skill in the art knows that shells are a means for users of a Unix operating system to interface commands with the operating system to perform some functionality with the outside world. Unix is one of a plurality of operating systems available in computer systems employed today.

As per **claims 19 and 36**, which respectively depend on claims 17 and 34, Although Kovacs teaches of accessing location information, Kovacs does not explicitly teach wherein information is accessible by said user via a simple network management protocol.

Land teaches accessing information by said user via a simple network management protocol (see col.5, line 64 - col.6, line 2: "SNMP manager 320 of access device 300 is aware of network and can provide an interface optimized for speed and navigability. The user interface may...").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Land so that information is accessible by said user via a simple network management protocol. One would be motivated to do so because Land teaches that SNMP provides the ability to manage a user interface and at the same time check for consistency and safety of user commands (see col.2, lines 35-39).

As per **claims 20 and 37**, which respectively depend on claims 19 and 24, Although Kovacs teaches of accessing location information, Kovacs does not explicitly teach wherein information is stored in a simple network management protocol management information base variable.

Land teaches storing information in a simple network management protocol management information base variable (see col.2, lines 17-23: "access to the configuration variables of a device through a Management Information Base").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Land so that information is stored in a simple network management protocol management information base variable. One would be motivated to do so because Land teaches that SNMP provides the ability to manage a user interface and at the same time check for consistency and safety of user commands (see col.2, lines 35-39).

As per **claims 21 and 38**, which respectively depends on claims 20 and 37, Kovacs does not explicitly teach wherein said variable is system information for the device.

Land teaches wherein said variable is system information for the device (see col.2, lines 17-23: "access to the configuration variables of a device through a Management Information Base").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Kovacs in view of Land so that said variable is system information for the device. One would be motivated to do so because such implementation allows associating the location of the mobile device of Kovacs to the mobile device itself.

Response to Arguments

8. Applicant's arguments with respect to claims 1-51 have been considered but are moot in view of the new ground(s) of rejection. Kovacs (US 6,415,220) has been cited, based on the amended claim language, to better teach all the claimed limitation of

claims 1-8, 11, 12, 14-17, 22-24, 27-34, and 39-51 including the argued limitation of a querying a hierarchical server. Girard (US 2003/0005316) has been cited to teach the missing limitations of claims 9, 10, 25, and 26, Werb et al. (US 6,456,239) has been cited to teach the missing limitations of claim 13, and Land et al. (6,008,805) has been cited to teach the missing limitations of claims 18-21 and 35-38.

Conclusion

9. For the reasons above claim 1-51 have been rejected and remain pending.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Won/

Primary Examiner

August 2, 2007